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09/759,424

01/12/2001

Manabu Sawasaki

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EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2871

MAIL DATE

DELIVERY MODE

05/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/759,424

Applicant(s)

SAWASAKI ET AL.

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8,23,32-41,54,55,57,59-61,63 and 65-69 is/are pending in the application.
4a) Of the above claim(s) 54 and 55 is/are withdrawn from consideration.
5) ☒ Claim(s) 23,32-41,57,59-61,63,65,66-69 is/are allowed.
6) ☒ Claim(s) 1,8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/11/2008 has been entered.
2. Applicants' amendment dated 03/12/2008 has been received and entered. By the amendment, claims 1, 8, 23, 32-41, 54-55, 57, 59-61, 63 and 65-69 are remain pending in the application, wherein claims 54 and 55 stand withdrawn from consideration.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lien et al., US Patent No. 6,493,050, as stated in the previous final office action dated 01/09/2008.

Regarding claims 1 and 8, Lien et al. figures 1A and 16-17 which disclose a liquid crystal display (LCD) device comprising:

- . a pair of substrates (102, 104);
- . a liquid crystal layer (101);

- . color filters (106);
- . a common electrode (122);
- . cell gap adjusting spacers (first spacer 108), wherein the cell gap adjusting spacers (108) covered directly adjacent terminal edges of the color filters (where the color filters 510 and 504 are met) as well as formed over a black matrix(the stacked color filters 112, 510, 504)(see figure 16);
- . domain defining projections (pretilt control structure 114/134) as claimed.
- . pillar-shaped gap holding spacers (dam 110/602)(see figure 16) formed outside of a display region (see figure 2).

Lien et al., however, do not disclose the gap holding spacers formed interspersedly in an area between outside of the display region and the sealing material region. It would have been an obvious to one having ordinary skill in the art at the time the invention was made to interspersedly form a gap holding spacers since the examiner takes Office Notice of the equivalence of the stripe shaped gap holding spacer and intersperse formed gap holding spacer for their use in the display art and the selection of any of these known equivalents to maintain an uniform cell gap would be within the level of ordinary skill in the art.

Allowable Subject Matter

5. Claims 23, 32-41, 57, 59-60, 63 and 65-66 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: none of prior art disclose, singly or combined, an LCD device having a plurality of spacers interposed between two substrates , wherein the spacers are formed to satisfy all condition as set

forth in claims 32-33. Furthermore, pixel regions include both first pixel regions, in which a final protection film is interposed between pixel electrodes and a transparent substrate, and second pixel regions, in which the final protection film is not interposed between the pixel electrodes and the transparent substrate as set forth in claims 23, 32-34, 38, 57, 59-60, 63 and 65-66 as well as both the first and second spacers are formed over a black matrix formed on the substrate as set forth in claims 61 and 67-69).

Response to Arguments

6. Applicant's arguments filed 03/12/2008 have been fully considered but they are not persuasive.

Applicant's only argument is the cited reference fails to disclose the gap holding spacers having a pillar shape individually, interspersed in an area between outside of the display region and the sealing material which is outside of the display region on the substrate. The Examiner is not convinced by this argument since the same is true of the Lien et al. pillar shape gap holding spacers. It should be noted the Lien et al. gap holding spacers having same shape (e.g., pillar shape) and same location, so their spacers would perform a same function as the Applicant's gap holding spacers as well. Even if the Lien et al gap holding spacer might have a different function from the Applicant's gap holding spacers, the Lien et al. gap holding spacers (602) do have a pillar shaped (figure 16) and locate at area where is between the outside display region and the sealing area (113) (figure 2) as claimed as well.

Accordingly, the rejection of claims 1 and 8 stand.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
05/12/2008

/Dung T. Nguyen/
Dung Nguyen
Primary Examiner
Art Unit 2871

Application Number**Application/Control No.**

09/759,424

Examiner

Dung Nguyen

**Applicant(s)/Patent under
Reexamination**

SAWASAKI ET AL.

Art Unit

2871